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Montana Department of
ENVIRONMENTAL QUALITY
Judy Martz, Governor

P.O. Box 200901 • Helena, MT 59620-0901 • (406) 444-2544 • Website: www.deq.state.mt.us

August 27, 2004

Post-it® Fax Note 7671	Date 8/27/04	# of pages ▶ 4
To Catherine Collins	From D Klemp	
Co./Dept. EPA	Co.	
Phone # 303-312-6048	Phone # (406) 444-0286	
Fax # 303-312-6064	Fax #	

Catherine Collins
USEPA – Region 8
999 18th Street
Suite 300
Denver, CO 80202-2466

Dear Catherine:

The Montana Department of Environmental Quality (Department) has completed its initial review of the most recent draft of the New Source Review Program Review completed by EPA Region VIII. The Department very much appreciates the opportunity to review the report prior to EPA finalizing it. Because we were unable to work with the electronic version of the document, the Department has written its comments on the attached hard copy of the report. While it would be too cumbersome to discuss the Department's specific comments in this letter, the Department does want to draw EPA Region VIII's attention to general aspects of the report that the Department finds troublesome.

The Department does not understand why this report appears to be drastically different than the two previous versions the Department has reviewed. The report now has language added that doesn't seem appropriate or necessary to add, and includes information that was not covered as part of the program review. These additions also make the report very difficult to read because the report doesn't flow properly. The Department suggests that EPA Region VIII prepare the report in a manner that more clearly states EPA Region VIII's findings from the program review and leave out those additions that are not related to the review that was conducted last year. The Department also requests that EPA Region VIII clearly identify the authority being cited for the statements made in the report when appropriate to do so.

The Department would welcome the opportunity to further discuss our specific comments or any other portion of the report if EPA Region VIII wishes. If you have any questions or require additional information, please contact me at (406) 444-0286 or Dan Walsh at (406) 444-0285.

Sincerely,

David L. Klemp
Air Permitting Supervisor
Air Resources Management Bureau

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Air Permitting Supervisor
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DK. 8/6/04
JPS added 8/24/04
DR added 8/25/04

Montana Department of Environmental Quality

New Source ~~Construction~~ Review Permitting Program Review

FINAL REPORT

July 2004

Conducted by the

U.S. Environmental Protection Agency

Region 8

999 18th Street, Suite 300

Denver, Colorado 80202

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EXECUTIVE SUMMARY FOR NSR PROGRAM EVALUATION MONTANA

During the week of June 23, 2003, the Region 8 Environmental Protection Agency (EPA) office conducted a review of Montana's New Source Review (NSR) construction permit program. The program review consisted of reviewing the overall NSR program and reviewing the Best Available Control Technology (BACT) process the Montana Department of Environmental Quality (MDEQ) uses. The overall program review used the nationally prepared evaluation checklist. The BACT process review consisted of reviewing the BACT analysis of all 9 Prevention of Significant Deterioration (PSD) construction permitting actions since 1999.

The purpose of the program review was to evaluate the implementation of the construction permit program and note practices that other agencies could learn from, document areas needing improvement, and learn how EPA could assist MDEQ in the future. EPA conducted these program evaluations as part of its obligation to oversee and review state programs it approved for implementing the NSR program.

As part of the programmatic review, Mike Sewell, EPA-OAQPS; Catherine Collins and Christopher Ajayi, EPA-Region 8, met with the MDEQ staff, Dave Klemp, Air Permitting Section Supervisor; Vickie Walsh, Compliance Section Supervisor; Dan Walsh, Environmental Engineer Specialist, Preconstruction Lead Worker; Angela Haller, Air Modeling; Debbie Skibicki, Environmental Engineer Specialist, Title 5 Lead Worker; and Julie Merkel, Air Quality Specialist. In preparation for the review, the state completed the NSR program evaluation questionnaire. The state's responses on that questionnaire were the basis of discussion during the program review (Appendix A).

EPA reviewed all of the BACT analyses in all 9 preconstruction permits issued or drafted since 1999. The following table shows the files reviewed.

New Source Review Permit Reviews	
Company Name	**Permit Number/Date Issued**
Graymont Western U.S., Inc.	1554 / 11-01-00
Plum Creek Manufacturing – Evergreen	2602 / 8-10-02
AgriTechnology Montana LLC	2835 / 11-06-01
Rocky Mountain Power	3185 / 6-11-02

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Executive Summary Findings from the NSR Program Review

During the programmatic review it was noted that MDEQ's NSR program has evolved and improved in the last 5 years. Also, MDEQ has made many improvements so the construction permit conditions can be easily incorporated into the Title 5 operating permits. EPA is encouraged by the progression of MDEQ's construction permitting program. Below are the significant findings of the NSR program review. EPA has arranged the comments into 3 groups: areas of major improvement for the review period, areas where improvements can still be made, and areas where EPA can assist MDEQ to strengthen its program.

A. The following programmatic areas were identified as areas where the MDEQ has improved the program in the past 5 years:

1. Web site – The web site contains links to the state's rules and regulations, permit guidance, application forms, public notices, preliminary determinations, draft permits, and final permits. MDEQ has recently put all of the permitting actions on their web site. This has made the permits more readily available to the public and to EPA. The web site is a great addition to the permitting program.

2. Records – MDEQ maintains excellent files and administrative records for its construction permits and adheres to the applicable state administrative requirements.

3. Application Completeness – MDEQ does a good job ensuring applications are complete.

4. Permits – MDEQ's permits are well written, clearly indicating what is approved for construction. Generally, the permits include adequate terms and conditions to ensure that BACT will be installed and operated and include adequate emission limits in order to ensure that NAAQS and PSD increments will be protected. However, MDEQ needs to ensure that the short-term limits established in the permits have averaging times within the same time frames as the NAAQS and increments. The permits include adequate requirements for testing, monitoring,

record keeping and reporting. More detailed comments on the BACT analysis review are provided later in this report.

5. Public Involvement – Montana has changed the rules to allow for ~~adequate~~ public notice which is now at least as stringent as what is required by EPA. MDEQ does a very good job in providing an opportunity for public involvement. Public notices are well written and widely distributed, including being posted on the MDEQ web site. MDEQ does a good job in preparing written responses to comments.

B. The following programmatic areas were identified as areas where program improvements can be made:

1. Synthetic Minor Source Tracking – MDEQ agreed it would be beneficial to track synthetic minor NSR sources in their database. MDEQ will look into making a field in the permit database to track synthetic minor status.

2. Fugitive Emissions – MDEQ will review the Federal Register on how to count fugitive emissions for NSR permitting. Currently, MDEQ does not consider fugitives in the applicability determination for NSR/PSD. MDEQ will begin to count fugitive emissions for the 28 listed categories. Montana's rule will not need to be changed as it already includes provisions for fugitive emissions.

3. Increment Tracking – MDEQ has an informal list of the increment/baseline areas in the state and will be working to have every source in the state tracked for increment consumption. The anticipated time frame to have complete this project is by the end of 2004. MDEQ should provide EPA with a modeling protocol for review on the methods used to track increment consumption. MDEQ should work to formalize the increment and baseline lists.

4. Changes in NSR program – In order to keep up with the current changes and court cases that might affect its program, MDEQ should monitor the Technology Transfer Network (TTN) on a regular basis. Currently, MDEQ reviews the TTN as needed, such as reviewing the TTN on a quarterly or semi-annual basis to keep current with national permitting actions.

C. The following programmatic areas were identified as areas where the MDEQ needs further assistance from EPA:

1. Increase Staff Knowledge – EPA provided the following guidance documents for MDEQ to review:
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- November 12, 1997 guidance on Crediting of Maximum Achievable Control Technology (MACT) Emissions Reductions of NSR Netting and Offsets, and
- Federal Register (FR) Notice on Fugitive Emissions Data. A copy of these documents except the Federal Register Notice on Fugitive Emissions was provided to MDEQ. EPA will mail a copy of the FR Notice on Fugitive Emissions.

2. Routine Maintenance, Repair and Replacement (RMRR) – To date, MDEQ has not made any RMRR decisions, but this may become an issue in the future. MDEQ anticipates developing a permitting section RMRR policy when the need arises and EPA input may be sought when developing the RMRR policy.

3. RACT/BACT/LAER Clearinghouse (RBLC) – MDEQ said the RBLC could be more useful, if source information was entered into the Clearinghouse at the proposed action stage and information updated when the project becomes final. This would alert MDEQ to other actions under consideration at the time of developing a construction permit. Additionally, it was noted that fields for averaging time, test methods, cross links to the permit, and costs would be helpful. MDEQ has noted when calling some of the permitting agencies, the data in the RBLC is not accurate and suggests that more QA/QC be done on the data base. EPA has recently taken comments on the RLBC and the MDEQ comments should be given to the appropriate EPA staff contact.

4. Environmental Justice (EJ) – MDEQ would like to have EPA assistance with EJ issues. Training about EJ issues would be very beneficial. MDEQ currently uses the Montana Environmental Policy Act (MEPA) process to address socio-economic concerns.

5. Training – MDEQ would like EPA to continue to support NSR training. The state has had significant staff turnover and NSR training would help educate the staff and keep existing staff knowledgeable of NSR program implementation issues. Additionally, MDEQ would like training to cover the issues of specific interest to Montana such as increment, AQRVs, permitting terms and definitions, and aggregation.

6. Permit Comments – MDEQ would like EPA to provide a written response to every permit, including those permits with no comments.

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9. Public Outreach on BACT Evaluations – MDEQ said EPA could assist the state by providing citizens training explaining BACT to the public.

Executive Summary BACT Review/EPA Findings

The following areas are those that were identified as BACT specific where the NSR permitting program could be improved:

1. MDEQ should include in all future permitting actions that the BACT analysis be reevaluated if construction has not commenced within 18 months of the permit issuance [40 CFR 52.21(i) and (j) and 51.166(j)]. The state has incorporated by reference into the SIP 40 CFR 52.21. If a PSD source has not yet commenced construction, MDEQ expires the permit and the source would have to reapply to get a new PSD permit.

2. MDEQ needs to explain thoroughly in the Technical Support Document (TSD) the rationale used to make the BACT determination. The TSD should clearly explain:

   - the rationale used to not employ a control technology (infeasibility),
   - cost (including incremental and total cost analysis),
   - the emission limit,
   - the averaging time and why it is appropriate to protect the National Ambient Air Quality Standards (NAAQS) and increment,
   - the selection of appropriate test methods, and
   - the scope of the search of BACT determinations must be national in scope,

3. Language in the PSD permit "equivalent technology" needs to be specified as a specific alternative technology or removed in order to allow for the public to comment. The permit needs to be clear about what technologies are to be employed rather than leaving the permit with language that gives broad discretion to select an equivalent technology which has not gone through public comment or review.

This approach may still be used provided the necessary side-boards are in the permit. If it is not allowed, please cite to legal authority.

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PURPOSE OF THE PROGRAM REVIEW

Many governmental and non-governmental entities are responsible for ensuring environmental protection throughout the nation. The majority of the environmental programs are carried out through the shared responsibility of EPA an its non-Federal partners.

In Region 8, EPA has approved into the Montana State Implementation Plan (SIP) the rules allowing the state to implement and issue NSR construction permits. EPA maintains the responsibility for overseeing SIP approved programs, monitoring progress toward meeting national environmental goals, and ensuring the Federal regulations and the Clean Air Act are implemented.

One goal of oversight is to strengthen the relationship between EPA and its partners to ensure that the national environmental goals in the EPA Strategic Plan are attained, and to ensure the State is implementing the SIP appropriately. Effective oversight helps to ensure adequate environmental protection through continued development and compliance with the national standards. Oversight also helps to enhance a partner's capabilities to administer sound environmental protection programs through increased communication and a combination of support and evaluation activities. Finally, Federal oversight seeks to describe and analyze the status of national and regional environmental quality, though continued collection and distribution of information from governmental agencies and other major sources. EPA is fully committed to the success of its partners' environmental programs.

Fostering a quality approved program and partnership is not a static activity. Conditions change, and program activities must evolve to respond to new environmental problems and challenges. Consequently, the methods used to oversee approved programs must change over time, depending on the maturity and complexity of national programs and on the capability of EPA's partner.

PROGRAM REVIEW PROCESS AND PROCEDURES

During this NSR program review, EPA performed an evaluation of the NSR construction permitting program which includes the PSD construction permitting program. The scope of the program review focused on the overall NSR program and the application of the BACT to the construction permits issued over the past 5 years. All source permits issued in the past 5 years were reviewed to identify areas for improvement and consistency of permitting practices. The MDEQ has a solid construction permitting program.

The files were extremely well organized, labeled well and very comprehensive. All the construction permits and approvals reviewed by EPA had a technical review document explaining the permit history and the MDEQ decision making process.

As was evident from our interviews and file review, the MDEQ staff is knowledgeable about the air permitting program and generally make sound decisions. MDEQ stated that its goal is to protect the public health and environment.

This review was initiated by EPA sending an advanced copy of a list of questions for MDEQ to provide responses. MDEQ cooperatively participated in the program review process. The program review and file review questionnaires had two fundamental purposes: (1) to collect and organize the information regarding the construction permitting program; and (2) to ensure consistency among the states when conducting the program reviews.

The EPA State Permitting contact for the program review coordinated with the MDEQ primary contact person in May 2003, to select a mutually agreeable date for the review. The week of June 23, 2003 was selected as the time of the on-site visit by EPA staff. June 23 through 27, 2003, EPA Region 8 performed an evaluation of the air NSR permitting program. In early June 2003, EPA provided a copy of the NSR program review questionnaire to MDEQ to fill out prior to the on-site visit. MDEQ provided draft responses to the questionnaire prior to the on-site visit and within the time agreed upon. The intent of the NSR permitting program review was to identify any major program deficiencies, to identify commendable practices, and to make recommendations on how to improve the programs.

It took MDEQ approximately 20 hours of staff time to fill out the questionnaire. The questionnaire consisted of questions on general program information and specific areas such as: Netting; Routine Maintenance, Repair and Replacement; Synthetic Minor Limits; Pollution Control Project Exemptions; Fugitive Emissions; Modeling; Stationary Source Determinations; Debottlenecking and Increased Utilization; Relaxation of limits taken to avoid Major NSR; Circumvention and Aggregation Issues; Prevention of Significant Deterioration; BACT; Class I Area Protection for PSD Sources; Additional Impacts (Soils, Vegetation, Visibility and Growth); Preconstruction Monitoring; Increment Tracking; Program Benefits; Non-Attainment NSR; NSR Offsets; LAER Determinations; Alternative Analysis; Compliance of Other Major Sources; Minor NSR Programs, Increment Protection; Control Requirements; Tracking Synthetic Minor NSR Permits; Public Participation and Notification; Environmental Justice; Program Staffing and Training; General NSR Program Issues; and Effective Construction Permits. This questionnaire was used as the basis for discussion during the on-site visit. During the on-site visit, EPA selected all construction permits issued in the past 5 years for a BACT analysis review. The permit review was conducted to ensure the construction permitting program was functioning properly. The EPA review team evaluated 8 source files containing 9 permits. The projects reviewed were permitted between 1999 and 2003. These permits represented all of projects approved during the program review time frame. EPA's goal was to provide MDEQ with the final report within 90 days of the completion of the on-site review and finalization of the responses to the questionnaire by MDEQ.

The EPA staff began the on-site review by discussing the schedule for the week, identifying the process of the review, and allowing the MDEQ the opportunity to ask preliminary

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It took MDEQ approximately 20 hours of staff time to fill out the questionnaire. The questionnaire consisted of questions on general program information and specific areas such as: Netting; Routine Maintenance, Repair and Replacement; Synthetic Minor Limits; Pollution Control Project Exemptions; Fugitive Emissions; Modeling; Stationary Source Determinations; Debottlenecking and Increased Utilization; Relaxation of limits taken to avoid Major NSR; Circumvention and Aggregation Issues; Prevention of Significant Deterioration; BACT; Class I Area Protection for PSD Sources; Additional Impacts (Soils, Vegetation, Visibility and Growth); Preconstruction Monitoring; Increment Tracking; Program Benefits; Non-Attainment NSR; NSR Offsets; LAER Determinations; Alternative Analysis; Compliance of Other Major Sources; Minor NSR Programs, Increment Protection; Control Requirements; Tracking Synthetic Minor NSR Permits; Public Participation and Notification; Environmental Justice; Program Staffing and Training; General NSR Program Issues; and Effective Construction Permits. This questionnaire was used as the basis for discussion during the on-site visit. During the on-site visit, EPA selected all construction permits issued in the past 5 years for a BACT analysis review. The permit review was conducted to ensure the construction permitting program was functioning properly. The EPA review team evaluated 8 source files containing 9 permits. The projects reviewed were permitted between 1999 and 2003. These permits represented all of projects approved during the program review time frame. EPA's goal was to provide MDEQ with the final report within 90 days of the completion of the on-site review and finalization of the responses to the questionnaire by MDEQ.

The EPA staff began the on-site review by discussing the schedule for the week, identifying the process of the review, and allowing the MDEQ the opportunity to ask preliminary

questions about the review process. Those in attendance were: Mike Sewell, EPA-OAQPS; Catherine Collins and Christopher Ajayi, EPA-Region 8; from MDEQ staff: Dave Klemp, Air Permitting Section Supervisor; Vickie Walsh, Compliance Section Supervisor; Dan Walsh, Environmental Engineer Specialist, Preconstruction Lead Worker; Angela Haller, Air Modeling; Debbie Skibicki, Environmental Engineer Specialist, Title 5 Lead Worker; and Julie Merkel, Air Quality Specialist.

EPA staff were on-site for five days (two half days and 3 full days). The exit conference consisted of the EPA staff providing verbal preliminary findings and results. MDEQ responded with its comments and made closing remarks.

The EPA staff received the full cooperation and assistance of the MDEQ staff throughout the on-site visit. Supervisors and individual staff members made themselves available, as necessary, to answer questions or to otherwise assist the EPA staff. EPA fully appreciated this assistance and spirit of cooperation. At both the entrance and exit meetings, MDEQ staff emphasized that its goal was to provide the highest level of environmental protection and carefully balance all the issues under consideration in implementing this goal. MDEQ was open to reviewing the recommendations EPA might have as a result of the program review. EPA has raised a number of issues (i.e. director's discretion, modeling, BACT and increment consumption) over the past few years during the routine review of individual construction permits. The program review was a good opportunity to view how these issues have been addressed overall.

ON-SITE VISIT MEETING

The review began with a discussion of the questionnaire during the initial meeting. EPA went over each question in the questionnaire and MDEQ commented on MDEQ's responses. EPA asked follow-up questions or sought clarification, as necessary. EPA provided preliminary findings during the close-out meeting at the end of the NSR program review. MDEQ stated its group worked hard and was very dedicated. MDEQ has been making improvements in its permitting program to produce better permits. MDEQ expressed apprehension of being one of the first agencies in the nation to have a NSR and Title V program review.

MDEQ ORGANIZATION AND STAFFING

The MDEQ construction permit program is located in the Air ~~and Waste~~ Management Bureau, in the Air Permitting Section. The Air Permitting Section works closely with the Air Compliance Section and Technical Support Section. The Air Permitting Section is generally responsible for construction and operating permitting programs. The construction and operating permitting programs each have its own lead worker.

MDEQ currently has a staff of seven permit writers, two project leads, and one program manager. There is one position currently vacant, that will not be filled due to budgetary

constraints. There has been a high turnover of staff in the past five years. There are positions in Monitoring/Modeling and Compliance and Enforcement that support or review the construction permits. The permitting and compliance staff share information about sources. The permit staff has a working knowledge of the complex nature of construction permit requirements. MDEQ has staff members that are developing experience and knowledge in the air permitting program. MDEQ was very helpful during NSR program review.

TRAINING

Many of the permit engineers are new and have required on the job training. The permit staff has received adequate training. The MDEQ employees participate in training based on availability. Additionally, the permitting staff participates in training offered in meetings, permit workshops and on the job training. MDEQ would find it helpful to have training in areas specific to Montana issues, such as training on increment issues.

PRELIMINARY FINDINGS AND CLOSE-OUT MEETING

The preliminary findings and close-out summary meeting was held on June 26, 2003 at the MDEQ offices. Those in attendance were: Don Vidrine, Dave Klemp, Dan Walsh, Vickie Walsh, Debbie Skibicki, Mike Sewall, Catherine Collins, and Christopher Ajayi. Recommendations, as reflected in the Executive Summary, were made on how to improve the construction permitting program and areas where the program has excelled were highlighted. EPA agreed to allow MDEQ the opportunity to review the draft report before it would be issued as a final document.

SUMMARY OF FINDINGS AND CONCLUSIONS

Overall, MDEQ implements a solid construction permitting program and has adequate resources available. The permits that are issued are of a very good quality. MDEQ maintains an excellent permitting web site. As was evident from our meetings and file review, the staff is knowledgeable about the air permitting program. During the program review, EPA found both program strengths and areas for improvement. It appears MDEQ's construction permitting program is proceeding in the right direction and EPA is encouraged by MDEQ's program. The Montana NSR program has evolved and improved in the past 5 years. The significant findings of the review can be found in the Executive Summary. The comments have been arranged into 3 groups: areas of major improvement for the review period, areas where improvements can still be made, and areas where EPA can assist the state to strengthen its program.

Construction Permit Activity (1999 to 2003)

MDEQ issued the following NSR construction permits from 1999 to 2003: Graymont Western U.S., Inc.; Plum Creek Manufacturing – Evergreen; AgriTechnology Montana LLC; Rocky Mountain Power; Plum Creek Manufacturing – Columbia Falls; Louisiana-Pacific Corp. –

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Missoula; Roundup Power Project; Continental Energy Services. MDEQ issued a total of 9 construction permits for both new sources and modifications to existing sources. A summary of the permitting actions are as follows:

3 new major sources
6 major modifications to existing major sources

MDEQ issued 200 non-major permits, three PSD permits, and no nonattainment NSR permits in 2002. There was one nonattainment NSR permit issued in 1993. EPA's experience with other state permitting programs is that major source permits, and permitting actions at existing major sources, are a small percentage of the total number of construction permits issued each year. New minor sources and modifications to existing minor sources tend to dominate the universe of permitting actions.

major NSR

According to MDEQ, there are typically one to two permit to construct applications pending at a time. ~~With current staffing levels, this means that each permit engineer may have one application in process.~~ The average time taken by MDEQ to issue a PSD permit, starting from the time the application was determined complete, follows the following time line. A completeness determination is made within 30 days of application receipt. Once an application is complete MDEQ must meet statutory time lines, on average it takes about two months to issue a PSD permit and probably about the same for the nonattainment NSR permit. From initial submittal of an application, a draft permit is generally issued in about seven months.

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This processing time is influenced by discussion with the permit applicants and changes to the project design that occur after the initial application submittal. But mostly processing time is impacted by the permitting work load. MDEQ has an unofficial priority system for issuing permits. The highest priority for permit issuance is given to construction permits and then to Title V operating permits.

SUMMARY OF QUESTIONNAIRE FINDINGS

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The following information is a detailed summary of MDEQ's responses to the interview and questionnaire used during the program review. A complete copy of the questionnaire is found in Appendix A. Where EPA has had problems or comments on the MDEQ's implementation of the program, EPA has added to MDEQ's response. EPA generally agrees with how MDEQ is implementing the program unless EPA has noted a problem or has made a comment.

EPA needs to provide us w/ a summary of everything added.

PROGRAM REQUIREMENTS COMMON TO BOTH PREVENTION OF SIGNIFICANT DETERIORATION (PSD) AND NONATTAINMENT NEW SOURCE REVIEW (NSR)

Netting

Netting, as approved in the Montana NSR SIP, determines whether modifications at major stationary sources are subject to major NSR. MDEQ's contemporaneous look-back of period five years, is exactly the same as the Federal PSD regulations [40 CFR 52.21]. For determining the baseline from which emission reductions are calculated, MDEQ requires the applicant to submit the actual emissions from the units along with any applicable permit limits. MDEQ only allows reductions from actual emissions. An applicant cannot receive emission reduction credit for reducing any portion of actual emissions that result because the source was operating out of compliance.

MDEQ does not allow an applicant to receive emission reduction credit for an emissions unit that has not been constructed or operated. MDEQ has not had the opportunity to use emission reductions to meet MACT requirements as eligible netting credits, but believes it is appropriate for these reductions to be used as offsets to the extent the reductions are creditable. EPA's opinion is that the concept of nettting doesn't apply to 112 sources. It is not releveant to a new source and for a reconstructed source, post-change emissions are not considered to determine applicability (i.e. the PTE of the existing process or production is used to determine applicability). The existing process or unit does not have anything where it can apply netting. (See the definition of "reconstruct a major source at 40 CFR 63.41). Any emissions decreases claimed as part of a proposed modification required for all stationary, source-wide, creditable and contemporaneous emissions increases and decreases of the pollutant are included in the major NSR applicability determination. MDEQ requires the applicant to demonstrate any emission reductions have not been relied upon for other purposes when conducting a netting analysis to avoid "double counting" of emissions. MDEQ tracks the emission reductions by identifying the emission reductions in the permit analysis section of the technical support document. MDEQ has a process to track projects that use credits to net out of major NSR. Netting issues do not occur very frequently in Montana (approximately one netting action per year).

MDEQ requires emissions reductions, such as reductions from unit shutdowns, that are enforceable to be creditable for netting purposes. MDEQ has not, to its recollection (specifically in the last 5 years), had public concerns regarding the netting analysis and the procedures used for any issued permits that avoided major NSR. EPA identified its concerns during the individual permit reviews. Interpollutant trading is not allowed when doing a netting analysis, (e.g., a source using NOx or PM credits for netting out of Volatile Organic Chemical (VOC) increases). MDEQ's process to verify that a source's netting emissions reductions is to include emissions reductions that may have been "banked," and have not already been used by the source, or another source. MDEQ does not have an approved banking program. The emission reductions are tracked in the permit analysis and should any modification or new construction be

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proposed, then the source would evaluate the availability of offsets. Nonattainment NSR offsets required the applicant to demonstrate that emission reductions used for netting have not been previously used.

PTE Limits, Netting, and PSD Avoidance

MDEQ has limits on potential to emit (PTE) established for the purposes of keeping sources or modifications out of major NSR are well written, with adequate monitoring, record keeping and reporting requirements. PTE limits are consistent with EPA's guidance for practical enforceability and effectively limit the PTE of sources and modifications to less than the major source threshold. MDEQ regularly sends synthetic minor permits to EPA and EPA in its oversight role reviews a portion of these permitting actions and makes comments as necessary.

Routine Maintenance, Repair, and Replacement (RMRR)

MDEQ did not have knowledge of the EPA letter dated May 23, 2000, to Henry Nickel of Hunton & Williams, concerning Detroit Edison and the Wisconsin Electric Power Company (WEPCO) case. EPA provided this document during the program review. MDEQ will consider this document, in the future, should RMRR become an issue. MDEQ has not had to make any formal RMRR determinations in the last 5 years. Therefore, no documentation of formal RMRR exemption determinations have been produced. In the future, MDEQ would consider any determinations described at the various NSR trainings, determinations submitted by an applicant, previous policies, and court cases in making RMRR determinations.

MDEQ does not have a formal protocol for making RMRR exemption determinations. There is no formal protocol because MDEQ has not been asked to make RMRR determinations. If a request were made, MDEQ would ask the applicant to provide a demonstration of what the proposed RMRR is and to provide any supporting documentation. MDEQ would review the submitted information and any other available information to make its determination. If the determination were difficult, MDEQ would ask for assistance from EPA Region 8. If RMRR issues become commonplace, MDEQ would most likely develop a "guidance" document for the air permitting section.

The NSR permitting staff receives on the job PSD training, and training at EPA sanctioned courses. This training addresses the RMRR exemption evaluations. MDEQ has not provided an information outreach program on RMRR exemption evaluations for owners of regulated sources, but MDEQ would provide this training, if requested. MDEQ would like training on RMRR ~~to understand how to make RMRR determinations~~.

Synthetic Minor Limits

MDEQ does not keep a list of synthetic minor sources (i.e., sources that would otherwise be major for NSR but are considered minor because of emissions limits or other limiting

conditions in the permit). The only such list is maintained for Title V purposes. MDEQ will consider adding a flag to the Montana air permitting database to start tracking synthetic minor NSR sources. In the near future, the permit library will be located on MDEQ's web site for the public and/or EPA to access.

MDEQ's formal process for establishing a synthetic minor source is completed at the time the permit is issued. Sources submitting an application typically request a limitation to keep it below the NSR thresholds. If the source doesn't request a limitation MDEQ will contact the source and ask if it would prefer to accept a limit to keep it below NSR thresholds or if it wants to be subject to NSR review. Synthetic minor sources include enforceable permit limits, such as production limits, fuel consumption limits, and control technology requirements, to keep the source as a minor source. Rolling 12-month limits are used, as appropriate, to ensure the limits are enforceable as a practical matter. Compliance with the synthetic minor limits are tracked over time by the facility. Typically the facility submits information demonstrating compliance with the emission limits. At a minimum this emission information is submitted annually and is used in developing an annual emission inventory. If the limitation is such that the time period for demonstrating compliance needs to be shorter, then more frequent reporting is required. The permit writers have the compliance staff (facility inspectors) review and verify the facility's compliance with all applicable emission limitations.

MDEQ is satisfied the current tracking activities are sufficient to ensure sources getting synthetic minor permits to avoid major NSR review are not actually operating above the applicable major source threshold(s). Between MDEQ inspections and the reporting requirements for the facilities, MDEQ is confident the synthetic minor sources are staying minor or would be identified as exceeding the synthetic minor status. Synthetic minor permits contain conditions requiring sources to notify MDEQ if and when the major source threshold is reached. If a source is operating at the major source threshold then the source is out of compliance with its permit limits and MDEQ has sufficient compliance tools (record keeping, inspections, source tests, etc.) in place to identify non-compliance. There have been instances where the facility has notified MDEQ that it has exceeded the permit limits. The annual reports, source compliance inspection and public review help to ensure that synthetic minor permits are truly staying a synthetic minor source. If a source were to violate the synthetic minor permit limits, MDEQ would perform a case-by-case evaluation to determine if the source was capable of staying within the permit limits and the violation occurred because of operator error or if the source has no ability to comply the permit limits and would need to undergo a PSD review.

MDEQ performs or requires modeling for sources seeking synthetic minor permits to determine impacts on PSD increments and NAAQS, if the increment analysis is applicable (i.e. baseline being triggered). Additionally, MDEQ has internal guidance documents that identify when modeling is required. MDEQ should provide any internal guidance documents on modeling for EPA review. MDEQ's published guidance is consistent with 40 CFR 51, Appendix W.

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According to Montana's rule, visibility impacts are assessed when a major source or major modification of a major source occurs. Visibility issues in Class I areas have not been considered in the past, when reviewing synthetic minor applications. However, in the future, visibility considerations for minor sources could be factored into the permitting process (e.g. BACT analysis/determination). State BACT on minor source and visibility and other environmental impacts might be consideration to establish the BACT limit.

? as an environmental factor

Pollution Control Projects (PCP) Exclusion

MDEQ follows EPA's guidance on PCP exemptions from NSR. To the best of MDEQ's recollection, MDEQ has not granted any PCP exclusions for "feed" or "fuel" switches. The closest example identified is a change to cleaner fuels. MDEQ has generally required these type of activities to be permitted, rather than flagging the activity as a PCP. MDEQ would ask the applicant to provide a demonstration of the project's "environmental benefit" and not just "economic efficiency." MDEQ would review the demonstration and would seek concurrence from EPA Region 8. A modeling analysis or some other quantitative analysis could be used to evaluate collateral emission increases or a qualitative analysis could also be used to demonstrate insignificant impacts from emission increases. Hazardous Air Pollutant (HAP) collateral increases will be treated in the same way. Emission reduction credits from PCP are available for netting or NSR offsets. To the extent such decreases are made federally enforceable and are creditable (not relied upon for compliance with the SIP or enforcement actions), MDEQ believes actual emission decreases would be available to be used as offsets. The only PCP request in recent history was from a kraft pulp mill and involved the use of a regenerative thermal oxidizer that was part of a MACT requirement. Montana's NSR SIP does not include the PCP exclusion for electric utility steam generating units (WEPCO exclusion).

Fugitive Emissions

Are you saying this is different or problematic?

MDEQ's regulatory definition of "fugitive" emissions for major NSR applicability purposes is "those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening." MDEQ makes a distinction between "fugitive" emissions and "uncontrolled" emissions. Uncontrolled emissions are those emissions that do not pass through a control device or are not affected by a controlling agent or work practice. Uncontrolled emissions could be considered either "fugitive" or "point" sources of emissions depending on the type of source.

Fugitive emissions in major NSR applicability determinations for new or modified sources are considered, only to the extent fugitive emissions are required to be considered, such as for the 28 listed source categories. For existing sources that are not one of the 28 "listed" source categories, Montana does not include fugitives in the need for permit determination section. MDEQ allows major sources to use reductions in fugitive emissions for netting purposes. ~~MDEQ must include fugitive emissions in determining the applicability.~~ If MDEQ believes there are actual emission reductions and it can be demonstrated there is a net air quality

delete

EPA-approved rules don't allow this for non-listed facilities

benefit, the baseline that is used is the "actual emissions" as required by MDEQ's rules. MDEQ's guidelines or calculation methodology used to quantify fugitive emissions is varied because there are a wide variety of fugitive emission types. In general, MDEQ prefers to use EPA emission factors (i.e., AP-42) whenever appropriate. In addition, MDEQ may use other resources, such as professional judgment based on similar sources. MDEQ's permits contain conditions for specific emission limits or control methods/work practice standards for fugitive emissions consistent with requirements for BACT.

Modeling

MDEQ follows EPA's modeling guidelines in 40 CFR Part 51 Appendix W. MDEQ has a written agency-specific air quality modeling guidance for use by applicants. The air quality modeling guidance is titled "Montana Modeling Guidelines for Air Quality Permits" and is available through the Montana DEQ homepage on the web-site. EPA has performed an initial review of the modeling guide and found that it was adequate. The modeling guidance is not approved in state regulations or through the SIP. MDEQ asks the applicant to submit a modeling protocol for approval prior to submitting the modeling. Although the modeling protocol is not required, it is highly recommended. Obtaining Department approval before the modeling is submitted is beneficial to both the applicant and MDEQ. Deviations from the modeling guidelines in Appendix W are subjected to public comment to the same extent that all applications submitted to MDEQ are subject to public comment and are submitted to the regional EPA office for approval. EPA's regulations allow for deviations from Appendix W so long as EPA approves the deviations according to Appendix W, Section 3.2.2.a. If there is any deviation from standard modeling procedures, MDEQ requests protocols be submitted. The modeling protocol is provided to other interested organizations (e.g., EPA, Federal Land Manager (FLM), if it is submitted and the other interested parties are required to receive it, such as a modeling protocol for a permit action subject to NSR. In addition, all information that is submitted to MDEQ (that is not deemed confidential) is part of the public record and is open for public inspection. Such information is provided to interested parties as requested. MDEQ reviews the modeling submittals to determine if the option switches are correct.

Proposed new and modified minor permit actions are evaluated to determine if modeling for the NAAQS and PSD increments is needed (as mentioned earlier, MDEQ should provide the internal guidance document to identify when modeling is required). In the recent permit applications, modeling for NAAQS has been performed. Any minor source required to obtain a permit that locates in a "triggered (baseline date)" area would be required to demonstrate compliance with any applicable increment. The effect of downwash is modeled if stacks are less than good engineering practice (GEP). Montana will put the building dimensions into the model to consider the effect of downwash, if the stack is less than GEP. MDEQ properly accounts for GEP stack height if the stack is taller than GEP, with the exception of the Montana Sulphur and Chemical Company case where GEP was not correctly addressed. The most recent years available are typically used for off-site meteorological data. MDEQ may request readily

available preprocessed representative meteorological data of the area be used in the modeling analysis.

Modeling staff are trained on the job, and by attending other pertinent and available training (e.g. Bee-Line, Westar, Earth Tech, etc.). MDEQ follows "The Air Quality Analysis, Additional Impacts Analysis, and Class I Area Impact Analysis" guidance provided in the New Source Review Workshop Manual (Draft October 1990). The cumulative NAAQS and PSD increment compliance assessment is performed by using the appropriate emission inventories of other sources. Sources are required to compile these inventories and typically rely on MDEQ's database containing the other facility's emissions. MDEQ confirms the assessment was completed correctly. MDEQ identifies emission sources by conducting site visits, traveling to the area, using maps, or using other generally available information. MDEQ eliminates emission sources if the source would not cause or contribute emissions to the area in question. PSD increment consuming/expanding sources are identified and tracked during the permitting of the major source that triggered the minor source baseline date. Any future sources moving into an area would be tracked by MDEQ, along with their emissions. MDEQ has a map of the increment areas by pollutant.

EPA and MDEQ disagree on the baseline areas and trigger dates. EPA uses the following as the baseline minor source trigger date: 1990 for NOx 1990 and 1979 for SO2 and PM. This disagreement could affect what other nearby sources would need to be modeled in PSD permit increment modeling. In reviewing recent PSD permit applications this has not been an issue because the proposed new sources were not very close to existing sources where a cumulative increment modeling analysis would be necessary. Mobile sources are modeled for increment compliance to the extent they consume increment.

A cumulative analysis of the NAAQS using allowable emissions from existing sources would be used along with the projected allowable emissions of the source seeking the permit. For a cumulative increment analysis the actual emissions from existing sources would be used, if they were available (if unavailable allowable emissions could be used), along with the projected allowable emissions of the source seeking the permit.

MDEQ ensures the controlling concentrations reported by the applicant for each pollutant and averaging period were appropriately determined during the review of the information submitted in the application. The impact modeling analyses are reviewed to ensure for accuracy and completeness, and appropriate modeling procedures (e.g., modeled to 100-m resolution, fence line and not property line, nearest modeled receptors, etc.) were followed. Complex terrain is an issue in Montana. The appropriate model is required and the terrain (receptor files) are reviewed by MDEQ to ensure the proper spacing was used to accurately reflect the terrain and ensure that peak concentrations are modeled. Furthermore, "hot spot" modeling is conducted. Pollutants without NAAQS and/or PSD increments are addressed in the air quality impact assessments. These types of pollutants may be addressed in a more qualitative manner. MDEQ generally relies on what is requested by the FLMs. The threshold concentrations would depend

on the pollutant in question. EPA has reviewed MDEQ's modeling practices and found, in general, that there are no areas of concerns. In the future, EPA will be conducting a detailed survey and evaluation of the modeling program.

Appropriateness of an application's proposed meteorological data is determined according to the guidance set forth in MDEQ guideline–Appendix E. "On-site" meteorological data requirements are determined on a case-by-case basis, but are required primarily when the data are available or when there are no representative data available. Every effort is made to ensure the data are validated and 90% is accepted. However, a case-by-case determination may be made and the "on-site" data may be supplemented with representative data.

The applicant is required to demonstrate it does not cause or contribute to the violation, when an applicant's air quality modeling reveals NAAQS and/or PSD increment violations. The violations would be addressed by dealing with the source(s) causing or contributing to the violation. In general, MDEQ uses an informal threshold established by Appendix S. Although this threshold was established for nonattainment areas, MDEQ believes it is a conservative approach for looking at PSD permits. EPA has indicated that this approach may not be acceptable, since MDEQ should formally submit significance levels for EPA approval (probably as a SIP revision).

MDEQ's definition of ambient air means that "portion of the atmosphere, external to buildings, to which the general public has access." MDEQ has suggested receptor spacing in Montana's Modeling Guideline. However, it is up to the applicant to determine the receptor spacing. MDEQ would ensure the "hot-spot" receptor spacing is not more than 100 meters or is less for very complex terrain. If verified monitoring data is absent in the area of concern, MDEQ has default values of background air quality data that are representative and that are used for areas where no other significant sources exist. These background values may be used in conjunction with modeling sources located in the area to determine appropriate background values. MDEQ uses the same North American Datum (NAD) for stack, receptor, and building UTM coordinates.

Stationary Source Determinations

Montana's SIP-approved rules define a stationary source differently than 40 CFR 51.165 or 51.166. MDEQ's definition contains an exclusion for HAPs, except to the extent that such HAPs are regulated as constituents of more general pollutants listed in section 7408(a)(1) of the Clean Air Act (CAA).

MDEQ uses EPA policy and guidance to determine if emitting units are under common ownership/control or are considered separate sources. Distance between emitting units is one of the factors considered in making a source determination. MDEQ considers the potential for the source(s) to affect the same airshed. EPA does not use distance as a criteria for determining a single source. MDEQ assesses a source(s)' financial, personnel, and contractual relationships to

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determine common ownership or control. Frequently, companies will show business/contract information [process descriptions, contractual information, or obligations] to MDEQ during a meeting and keep the information instead of leaving a copy with MDEQ. MDEQ assesses whether sources with different first two-digit SIC codes (i.e., emissions units not in the same industrial grouping) can qualify as a single or separate stationary sources. EPA could request that business information be shared with EPA should the need arise. EPA has guidance on what constitutes a single source. In the case of Roundup, EPA questioned whether the mine and the power plant were appropriately considered as separate sources. EPA would encourage MDEQ to review EPA's policies on single source determinations and would encourage further dialogue.

Debottlenecking and Increased Utilization

When determining if a proposed modification is subject to major NSR, MDEQ includes emissions increases from existing emissions units that are not physically modified (i.e., debottlenecked units or units with increased utilization). MDEQ looks at actual and potential emission increases and any relevant guidance to determine how the regulations affect the debottlenecked unit and to determine if there is an emissions increase from the emission units. Permitting staff is trained through on-the-job training and by attending relevant training courses. The training includes considering emissions increases when determining if a modification is major for NSR.

Relaxation of Limits Taken To Avoid Major NSR

MDEQ has knowledge of the "relaxation" regulatory provisions of 40 CFR 51.165(a)(5)(ii), 51.166(r)(2), and 52.21(r)(4). In general, if a source becomes a major source because a limitation (previously placed on the source to keep it from being subject to NSR) was relaxed, then certain provisions of NSR apply to the source or modification as if it were a new source and construction had not yet commenced. The types of changes MDEQ considers potentially subject to relaxation assessment are the relaxation of limitations on production, hours of operation, control technology requirements, or process limits. MDEQ does not have a written policy on relaxation assessments. MDEQ has not made any relaxation assessments in the last five years. Any time changes are made to an existing major source, MDEQ would ensure the source is not relaxing a condition without complying with the appropriate requirements. MDEQ includes specific permit limits and conditions to make potential future relaxation possibilities more identifiable. If during this change the source relaxes a condition meant to keep it out of NSR, the source would be subject to certain provisions of NSR as if it had not yet begun construction. Relaxation evaluation training is provided to NSR permitting staff employees in EPA approved training courses and through on-the-job training.

Specific references on limitations and a thorough discussion in the permit analysis help to clarify future relaxation possibilities (e.g. a minor source becoming a major source). MDEQ's understanding of the appropriate circumstances under which an existing minor source is allowed a 100/250-tons-per-year emissions increase without triggering the relaxation provision is if a

minor source undertakes a physical or operational change and the change is in and of itself considered major, then the source is subject to NSR.

A relaxation could result in NSR implications and doesn't relieve a source from the obligations under NSR. Regulatory changes are not considered a "modification" and therefore, NSR would not be triggered.

Circumvention/Aggregation Issues

The State considers whether to aggregate prior minor emissions increases at the stationary source when reviewing a modification to determine if the permitting action is major for NSR. Aggregating is only considered if netting is part of the action or if MDEQ believes the modification should be considered with previous changes. MDEQ uses the following criteria to determine if a series of minor modifications or projects needs to be aggregated for NSR applicability purposes. MDEQ looks at the previous modifications, on a case-by-case basis, to determine if the modifications should be considered as part of the same project. Subsequent projects at the same facility would be subject to the same case-by-case scrutiny. When requests are made to permit new or modified emissions units as separate minor changes over time, MDEQ evaluates whether the permitting process is purposely staged as minor permit changes when the changes are really one permitting action subject to major NSR. Furthermore, Montana's de minimis rule prohibits projects from being artificially split up to avoid further permitting.

Prevention of Significant Deterioration (PSD) Program Benefits

As part of the program review, the permitting agency was asked what it thought were the benefits of the PSD program. In MDEQ's opinion, the following are the PSD program benefits:

1. An incentive to reduce emissions below major source levels. Industry appears to be quite interested in avoiding PSD.

2. PSD permits have been used as the authority to implement other priorities such as toxic emission reductions and improved monitoring and reporting.

3. The case-by-case nature of a PSD permit allows for the MDEQ to implement emission reducing programs or controls more quickly than through rule making.

4. The PSD program provides communities a mechanism to be involved in improving air quality. In Montana, communities can be involved in both major source and minor source permitting. Since Montana has changed the public comment period for PSD review to be at least as stringent as EPA's rule, the public has ~~adequate~~ more notice and opportunity to comment.

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5. The PSD program has contributed to sustaining good air quality.

Best Available Control Technology (BACT)

EPA strongly encourages and recommends that permitting authorities use the "top-down" BACT approach as outlined in the October 1990 "New Source Review Workshop Manual: Prevention of Significant Deterioration and Nonattainment Area Permitting."

MDEQ does not "require" permit applicants to use the "top-down" method for determining BACT. MDEQ does not have rules to require "top-down" be used, but MDEQ certainly recommends using the "top-down" approach. In general, most major and minor sources use the "top-down" BACT approach. MDEQ commonly uses information resources in addition to the RACT/BACT/LAER Clearinghouse to identify emission control options, costs, test methods or averaging times. The most useful information comes from other states, EPA, or FLMs. For example, the FLMs have shared "pending" PSD emission limits with MDEQ in the recent past. The applicants and vendors can also provide information. The usefulness of the information depends on the specific project being discussed. Although vendor information is useful, it is generally more difficult to obtain. MDEQ, when appropriate, considers combinations of controls when identifying and ranking BACT options (e.g., low organic solvent coatings plus thermal oxidation). MDEQ tries to look at practical control option combinations, not every combination (theoretical options that have never been used). EPA expects that the permitting agency look at all potential control options and evaluate whether the control option is viable. When appropriate, MDEQ regroups the emission units included in a cost evaluation. For example, if an applicant's approach is to evaluate the cost of controlling each unit separately, MDEQ considers combining units for control by one control device or conversely, if an applicant combines all units for control by one control device and concludes this approach is too expensive, MDEQ will consider controlling points in different combinations.

MDEQ provides detailed documentation and explanations of the draft BACT determinations in the public record. Additionally, in the public record for draft BACT determinations, MDEQ provides an economic rationale if a BACT option is rejected as being prohibitively expensive. MDEQ uses uncontrolled emissions to calculate baseline emission rates for calculation of cost effectiveness values. These are emissions that would be present without the benefit of controls or procedures for reducing emissions.

MDEQ's PSD permits specify emissions limits and control methods consistent with the basis and capabilities of the selected BACT options. MDEQ looks at other states' requirements regarding averaging time. The basis for the compliance averaging time for BACT emission limits is found in the RBLC, New Source Performance Standards (NSPS), ambient standard basis averaging time or other information available. MDEQ uses these averaging times to establish the BACT averaging times. In addition, MDEQ needs to ensure that the averaging times selected are protective of the short-term NAAQS and increments. MDEQ makes sure that permit conditions

impose restrictions consistent with BACT evaluation assumptions (i.e. if the annual emissions used in a BACT cost evaluation are based on an assumption of less than continuous operation and/or operation at less than maximum capacity).

MDEQ may consider deviations from EPA's recommended cost evaluation procedures, if the applicant can make a demonstration it is appropriate to deviate. Primary reliance for the BACT cost evaluations is placed on total cost effectiveness values and a comparative cost approach. MDEQ has an "approximate bright line" test for the cost of BACT (e.g. $/ton of pollutant), but a cost comparative approach is the primary driver for the establishment of BACT. MDEQ may try to obtain costs/basis for projects outside its permitting jurisdiction, as appropriate. EPA encourages MDEQ to continue to review the cost basis for project outside the permitting authorities jurisdiction. When considering the cost approach, MDEQ tries to be consistent among the different pollutants. However, HAPs, VOC, and Carbon Monoxide (CO) are generally treated slightly differently. Environmental impact from these pollutants might be different and may be lead to different costs for BACT and are therefore considered on a case-by-case basis. If MDEQ believes it necessary, it will conduct a BACT cost evaluation independent of the cost evaluation provided by the applicant. Cost estimates are required to be referenced to a common base year (e.g., 1998) so that cost estimates can be easily compared. Other agencies (e.g. State, EPA for FLM) are contacted to determine if their cost estimates need to be normalized before comparisons can be made. If MDEQ relies on costs from other agencies, it would make sure the comparisons were appropriate.

MDEQ performs a BACT assessment for all new or modified emissions units or activities emitting a pollutant subject to PSD review no matter how small the emissions from an affected unit or activity. Under the NSR program, all pollutants emitted in a significant amount are subject to BACT. Increases or decreases in corollary toxic/hazardous air pollutants are not usually considered as part of a BACT evaluation. However, such pollutants could be factored into the BACT analysis as part of collateral environmental impacts, if appropriate.

BACT evaluation training is provided to NSR permitting staff. MDEQ's staff attend EPA sanctioned training on NSR, which includes BACT, and may attend any other available training. Also, staff are trained on the job. BACT evaluation refresher training will be provided to the experienced NSR permitting staff when available. BACT-specific training recently became available and MDEQ will send staff to this training as time and resources allow. An information outreach program on BACT evaluations for owners of regulated sources or the public has not been provided, but would be provided if requested. Each major NSR BACT determination is entered into the RACT/BACT/LAER Clearinghouse. Before establishing BACT as work practice, design, or operational standards, MDEQ determines if emissions limits (e.g., lbs/mmBTU, lbs/hr) are unfeasible. MDEQ tries to factor what is feasible and appropriate. MDEQ applies BACT to fugitive emissions.

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MDEQ's PSD permits specify emissions limits and control methods consistent with the basis and capabilities of the selected BACT options. MDEQ looks at other states' requirements regarding averaging time. The basis for the compliance averaging time for BACT emission limits is found in the RBLC, New Source Performance Standards (NSPS), ambient standard basis averaging time or other information available. MDEQ uses these averaging times to establish the BACT averaging times. In addition, MDEQ needs to ensure that the averaging times selected are protective of the short-term NAAQS and increments. MDEQ makes sure that permit conditions

impose restrictions consistent with BACT evaluation assumptions (i.e. if the annual emissions used in a BACT cost evaluation are based on an assumption of less than continuous operation and/or operation at less than maximum capacity).

MDEQ may consider deviations from EPA's recommended cost evaluation procedures, if the applicant can make a demonstration it is appropriate to deviate. Primary reliance for the BACT cost evaluations is placed on total cost effectiveness values and a comparative cost approach. MDEQ has an "approximate bright line" test for the cost of BACT (e.g. $/ton of pollutant), but a cost comparative approach is the primary driver for the establishment of BACT. MDEQ may try to obtain costs/basis for projects outside its permitting jurisdiction, as appropriate. EPA encourages MDEQ to continue to review the cost basis for project outside the permitting authorities jurisdiction. When considering the cost approach, MDEQ tries to be consistent among the different pollutants. However, HAPs, VOC, and Carbon Monoxide (CO) are generally treated slightly differently. Environmental impact from these pollutants might be different and may be lead to different costs for BACT and are therefore considered on a case-by-case basis. If MDEQ believes it necessary, it will conduct a BACT cost evaluation independent of the cost evaluation provided by the applicant. Cost estimates are required to be referenced to a common base year (e.g., 1998) so that cost estimates can be easily compared. Other agencies (e.g. State, EPA for FLM) are contacted to determine if their cost estimates need to be normalized before comparisons can be made. If MDEQ relies on costs from other agencies, it would make sure the comparisons were appropriate.

MDEQ performs a BACT assessment for all new or modified emissions units or activities emitting a pollutant subject to PSD review no matter how small the emissions from an affected unit or activity. Under the NSR program, all pollutants emitted in a significant amount are subject to BACT. Increases or decreases in corollary toxic/hazardous air pollutants are not usually considered as part of a BACT evaluation. However, such pollutants could be factored into the BACT analysis as part of collateral environmental impacts, if appropriate.

BACT evaluation training is provided to NSR permitting staff. MDEQ's staff attend EPA sanctioned training on NSR, which includes BACT, and may attend any other available training. Also, staff are trained on the job. BACT evaluation refresher training will be provided to the experienced NSR permitting staff when available. BACT-specific training recently became available and MDEQ will send staff to this training as time and resources allow. An information outreach program on BACT evaluations for owners of regulated sources or the public has not been provided, but would be provided if requested. Each major NSR BACT determination is entered into the RACT/BACT/LAER Clearinghouse. Before establishing BACT as work practice, design, or operational standards, MDEQ determines if emissions limits (e.g., lbs/mmBTU, lbs/hr) are unfeasible. MDEQ tries to factor what is feasible and appropriate. MDEQ applies BACT to fugitive emissions.

APPENDIX D
EPA LETTERS REGARDING DE MINIMUS RULE

APPENDIX D
EPA LETTERS REGARDING DE MINIMUS RULE

APPENDIX C
EPA LETTERS REGARDING DEFINITION OF BASELINE

APPENDIX B
MDEQ MONITORING REQUIREMENTS

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APPENDIX A
NEW SOURCE REVIEW (NSR) PROGRAM REVIEW QUESTIONNAIRE
MAY 14, 2003

? Depends on the form + basis of limit.

required, MDEQ includes a permit condition that requires testing and specifies testing methods for PM_{10} condensibles, if appropriate.

EFFECTIVE CONSTRUCTION PERMITS

MDEQ's construction permits: (1) identify each emissions unit regulated; (2) establish emissions standards or other operational limits , including appropriate averaging times for numeric limits; (3) include specific methods for determining compliance and excess emissions, including reporting, record keeping, monitoring, and testing requirements; (4) outline procedures necessary to maintain continuous compliance with emission limits; (5) establish specific, clear, concise, and enforceable permit conditions; and (6) include conditions necessary for a source to avoid otherwise applicable requirements (e.g., keeping a modification "minor").

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provide formal NSR program training opportunities for the public, or regulated community, but would provide training, if requested to do so.

GENERAL NSR PROGRAM ISSUES

MDEQ implements EPA issued program guidance and policies for NSR. MDEQ mainly learns about federal NSR rule changes through involvement with WESTAR or STAPPA or by consulting EPA's web site. The staff reviews the source of emission factors and determines if the emission factors are appropriate to use. Staff may review other information sources such as information from other states, EPA, FLMs, or vendors to determine the appropriateness of any emission factor.

MDEQ maintains excellent files and administrative records for its construction permits and adheres to all applicable state administrative requirements. MDEQ does a good job ensuring applications are complete.

MDEQ has the following suggestion for the NSR program. The NSR program and the rules implementing the program should be reviewed and made clearer instead of adopting so much guidance to interpret the program. In addition, MDEQ sees there is a real problem of consistency across EPA regions and even within EPA regions.

MDEQ permitted 200 non-major permits, three PSD permits, and no nonattainment NSR permits last year. There was one 1 nonattainment NSR permit issued in 1993. The average time (months) taken by MDEQ to issue a PSD permit, starting from the time the application was determined complete follows this time line. A completeness determination is made within 30 days of application receipt. Once an application is complete MDEQ must meet statutory time lines. On average it takes about two months to issue a PSD permit and probably about the same for an nonattainment NSR permit. From initial submittal of an application, a draft permit is generally issued in about seven months.

EPA is concerned with the Montana statute that requires the state to issue a permit within 60 days from the date of completeness. EPA believes that the 60 day time frame may not give adequate time to address any significant comments made.

MDEQ has a formal procedure for establishing past permit violations related to NSR requirements, including applicable BACT or LAER requirements, and for dealing with "self reported" NSR violations.

PM_{10} condensible emissions are included in the total amount of PM_{10} emissions when determining PSD applicability, BACT, PSD increment, and NAAQS. When PM_{10} testing is

Cumulative effects are addressed in the MEPA analysis and in the demonstration of compliance with the Montana Ambient Air Quality Standards (MAAQS), NAAQS, and increment.

Additional community information and/or demographics (e.g. children, the elderly) are considered important for an EJ analysis and are identified through the MEPA process.

Public involvement during an EJ analysis is allowed. Stakeholder groups request to be involved or submit comments regarding MDEQ's draft decision. Generally, stakeholders can get involved upon initial submittal of the permit application. Any comments from the application submittal are appropriately considered. The substance of the comments determine the degree to which the stakeholders or community will be involved in the permit decision process. Those interested can have great influence on the permit decision, as allowed by law. Depending on the situation, the easiest way to know of stakeholder involvement is to review comments submitted and talk with the specific permit reviewer for a particular source. All of the information submitted to MDEQ is public information and available for public inspection, unless ~~deemed~~ confidential. MDEQ staff are available to answer questions and explain permit information. MDEQ decisions are detailed further in the permit analysis.

MDEQ considers direct and indirect benefits, and burdens from the proposed actions. MDEQ describes the social and economic, as well as the physical and biological, ~~aspects~~ of a project (~~pros and cons~~) in the MEPA document. The EJ analysis considers comparative and disproportionate impacts. This is determined on a case-by-case and criteria-by-criteria basis. MDEQ attempts to identify such impacts by requiring the applicant to identify social/economic and physical/biological impacts. MDEQ uses this information in conjunction with MDEQ research to identify impacts.

PROGRAM STAFFING AND TRAINING ISSUES

The total number of staff dedicated to NSR permitting is 10 technical staff which includes a modeler and one permitting supervisor. The permitting staff are responsible for minor NSR permitting, major NSR permitting, and Title V permitting. The NSR program breakdown of the staff (including compliance) into the different job functions is as follows: 5 engineers, 4 permitting specialists, 1 modeler, 8 compliance specialists, 1 clerical, 2 supervisors, 1 monitoring, 1 data management, 1 enforcement. Primarily, the staff are trained by existing senior staff and supervisors who have program experience. The staff tries to attend as many NSR trainings and conference calls, as possible. MDEQ uses EPA's draft NSR Manual for training and other training material made available through EPA or other trainers. EPA needs to provide more NSR training, especially advanced training and training specific to NSR Reform. Specific NSR training for Montana and BACT training would also be beneficial. MDEQ does not

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permits they need to get, to provide a comprehensive means for public involvement, and begin developing an archive for permitting actions. The air permits air program web site has:

- permit application forms and instructions, a calendar page with public notices on proposed permits and proposed regulations, permit guidance and final permit with links to air permit staff,
- permit process flow diagrams,
- air permits staff page with hot links to individual permit staff,
- permit application forms with a comprehensive set of permit application directions,
- air permits public comment calendar page with links to the public notice, technical analysis and draft permit for each proposed construction or operating permit,
- complete copies of final issued permits,
- ~~regulations with~~ links to MDEQ regulations and rule-making actions, and
- links to EPA policy and guidance databases and applicability determinations.

Overall, the MDEQ air permits program web site is a comprehensive resource for both the permit applicants and the general public.

ENVIRONMENTAL JUSTICE (EJ)

MDEQ considers EJ issues during the permitting process. EJ issues are considered to the extent that MEPA prescribes the state look at social and cumulative effects. MDEQ conducts a MEPA analysis for every ~~permitting action that requires public input~~. MDEQ conducts alternative analysis as part of its nonattainment area permitting process according to Section 173(a)(5) of the CAA. There are no EJ criteria or guidelines developed for this analysis by MDEQ, beyond the requirements of MEPA and Section 173(a) of the CAA.

MDEQ's NSR permitting program and public comment process for PSD regulated pollutants provides for consideration of alternatives, as allowed by Section 165(a)(2) and the MEPA. Generally, the demographics of an area are factored into the MEPA document.

provide public notice are the web site and using all of the other media available (TV, radio, newspaper). Public notices are not provided in languages other than English, unless requested. MDEQ has been asked by the public to extend a public comment period. Only in certain instances can MDEQ extend the public comment period, so most requests are rejected. MDEQ extended the comment period for projects subject to an EIS and for projects subject to the incinerator provisions.

EPA is concerned with the Montana statute that requires the state ~~to issue a permit~~ make a decision within 60 days from the date of completeness. EPA believes that the 60 day time frame may not give adequate time to address any significant comments made. However, ~~the~~ due date for making decisions.

The approximate percentage of major NSR permits revised due to public comments definitely depends on the type of source. Excluding comments from the applicant, at least 50% of the permits generally are revised for some reason based on comments from others. Based upon the last several years of permitting experience, public participation seems to be increasing. If a draft permit is revised, MDEQ considers whether the changes clearly exceed the scope of the application or if the public could not have reasonably anticipated the change, to determine if the permit should be reissued in draft.

MDEQ ~~would~~ provide the opportunity for a "public hearing" as part of the NSR permitting process. Public hearings are noticed in the same way as applications and permits (i.e. newspaper, web site, radio) and generally ~~MDEQ~~ tries to provide as much notice as possible (30 days, if possible). The public needs to notify ~~MDEQ~~ of its interest and ~~MDEQ~~ explains where the permit related information may be obtained (such as permit applications, draft permits, deviation reports, monitoring reports). MDEQ has a web site for the public to get permit related documents. Currently the draft or final air permits are on the web site along with the analysis for each permit and the MEPA analysis. Information is generally added or updated on the web daily, as permits are sent out.

Training has not been provided to citizens on public participation or on NSR. Training would be provided if requested. MDEQ sends the application material as well as draft and final permits to affected states and tribes, ~~if requested~~. Affected states and tribes are notified about how to participate in the permit process should they choose to do so. Public notices for PSD permits specifically state the amount of increment consumed. Public notices for PSD permits are sent to each party as identified in 40 CFR 51.166(q)(2)(iv).

WEB SITE

MDEQ has developed an excellent web site that provides real-time permitting information to the public. The web site serves many purposes to help sources determine what

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WEB SITE

MDEQ has developed an excellent web site that provides real-time permitting information to the public. The web site serves many purposes to help sources determine what

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De minimis Rule/EPA Findings

EPA has expressed concerns in the past regarding the State's de minimis provisions. (See Appendix D for letters) This rule allows existing air pollution sources to make certain modifications without having to obtain a preconstruciton permit. We are concerned that the rule could allow sources to violate major and minor source preconstruction permitting requiremnts) as well as the SIP. On May 28, 2003, the State submitted a SIP revision revising and reformatting subchapter 7 of the Administrative Rules of Montana. Included in that SIP was the de minimus permitting rules. EPA will decide whether or not it can approve the de minimis rule when we propose action on the SIP submittal.

PUBLIC PARTICIPATION AND NOTIFICATION

MDEQ changed its rule to allow for a 30 day public notice for NSR permits. This provides the same public comment period as in the EPA rules. Montana previously had a 15 day public comment period, which did not provide the public with the same amount of time to make public comments as would have been allowed under EPA's rule.

All major NSR permits (new nonattainment NSR, PSD and major modifications) issued by MDEQ are published in a newspaper of general circulation to inform the public of the draft permit decision. MDEQ has a procedure for notifying the public when major NSR permit applications are received. The applicant is required, by rule, to publish a public notice as part of the permit application submittal. The draft permit is saved to MDEQ's web site upon issuance and is sent to interested parties upon request. Synthetic minor, netting, and minor permits are not publicly noticed by MDEQ. In addition, the permit decisions ~~and permits~~ are placed on MDEQ's web site upon issuance.

MDEQ has developed a mailing list of interested parties for NSR permit actions [e.g., public officials, concerned environmentalists, and citizens]. The list is application-specific and members of the public need to notify MDEQ of their interest to be placed on the list. Other means for public notification are the web site, e-mails (used frequently), telephone, radio and television interviews, and conversations with interested persons. The public notices clearly state when the public comment period begins and ends. MDEQ believes the most effective ways to

Compliance of Other Major Sources in the State

MDEQ requires the permit applicant to demonstrate and certify that all major stationary sources owned or operated by the applicant in Montana are subject to emission limitations and are in compliance, or on a schedule for compliance, with all applicable emission limitations and standards [ARM 17.8.905(1)(b)]. MDEQ requires an analysis of a statewide compliance demonstration as part of its review of the permit application. There are no specific criteria identified to be used by the applicant in this demonstration as there may be a variety a methods and criteria available.

MINOR NSR PROGRAMS

NAAQS/Increment Protection

Modeling is used to assure minor sources and minor modifications will not violate the NAAQS. Air quality monitoring is required as part of a permit condition if the results of the modeling analysis shows it is necessary. For the pollutants with PSD increments, MDEQ has a list of areas (with UTM coordinates) where the minor source baseline has been triggered. EPA is concerned about this approach because EPA interprets the minor source baseline dates having been triggered for the entire state as discussed in the Increment Tracking Procedures section of this review. The information is contained on a tracking map (the list and the map could be made available upon request to MDEQ). Minor sources are modeled, as appropriate, for PSD increments if the minor source baseline is triggered. MDEQ has procedures in place to identify minor sources that consume or expand PSD increment. The public can access a list of sources that affect PSD increments by requesting it from MDEQ. Any information MDEQ has in its files or database are available for inspection by the public.

Control Requirements

The State of Montana has BACT requirements for all sources requiring an air quality permit. MDEQ has monitoring or reporting requirements for minor sources. The application or permitting process requires modeling for minor sources. Minor sources with Federally applicable permit limits for MACT, NSPS, or National Emission Standards for Hazardous Air Pollutants (NESHAP) are required to report compliance.

Tracking Synthetic Minor NSR Permits

MDEQ does not maintain a specific list of sources that have taken the synthetic minor limits to avoid PSD. Such a list has been created for sources that have taken synthetic minor limits to avoid Title V operating permits, but MDEQ does not have an established procedure for tracking synthetic minor construction permits. MDEQ does not include "prompt deviation"

reporting requirements in synthetic minor source permits. However, similar information is gathered through the normal recordkeeping requirements of the permit. The source must notify MDEQ when emission limits are exceeded, malfunctions occur and must submit annual emission data and emission inventory data which is used to determine compliance with synthetic permit limits. The requirements (e.g., PSD, nonattainment NSR, Title V, NESHAP) to keep a source minor are clearly identified in the permit applications MDEQ reviews and the permits issued.

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Permit Analysis

MDEQ provides detailed documentation or explanations of proposed LAER determinations in the ~~TSD~~ or public record. MDEQ considers combinations of controls when identifying and ranking LAER options, as appropriate. MDEQ performs a LAER assessment for all new/modified emission units or activities emitting a nonattainment pollutant subject to major NSR review no matter how small the emissions from an affected unit or activity. The LAER analysis would require that LAER be determined at the time of permit issuance (e.g. if LAER would change during the permit writing process, then the analysis would need to be redone so that LAER would be up to date at the time of permit issuance). MDEQ's permits contain conditions requiring specific emission limits, control method conditions or work practice standards consistent with the basis and capabilities of the selected LAER option. Compliance averaging times for LAER emission limits are established depending on the nonattainment area and the analysis conducted as part of a permit application. MDEQ's permits contain conditions requiring emissions testing, monitoring, record keeping, and reporting so that inspectors and enforcement personnel can easily determine compliance with LAER requirements.

MDEQ ensures permit conditions impose restrictions consistent with the LAER determination. The public would have an opportunity to comment on the application as well as any permit that was issued for a source, including the LAER determination. MDEQ reviews all public comments and incorporates those changes MDEQ believes are appropriate.

LAER evaluation training is provided to new NSR permitting staff. MDEQ staff receive EPA sanctioned training on NSR and on-the-job training. LAER evaluation refresher training has not been provided to experienced NSR permitting staff. An information outreach program on LAER evaluations for owners or operators of regulated sources or the general public would be provided, if requested.

Alternatives Analysis

Each nonattainment NSR permit action addresses the alternatives analysis as required by section 173(a)(5) of the CAA. This information is required in the application as well. The alternatives analysis is a specific requirement of Montana's nonattainment NSR rules. MDEQ would develop criteria (not a rule), to address the depth of analysis required for a specific project when the need arises. Project-specific EJ issues raised as part of this analysis are included in the permit action. MDEQ follows the procedure as described in Section 173(a)(5) of the CAA. These issues are described in the MEPA compliance document (generally an Environmental Assessment (EA)) created with each permit action and requires public input. MDEQ does not know of any projects where the analysis resulted in changes to the proposed projects.

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MDEQ first requires the applicant to make a demonstration and then MDEQ reviews all available resources to determine the appropriateness of the reductions to verify that the reductions proposed for NSR offsets are "surplus" to other Act requirements and are "real" (i.e., reductions in emissions that were actually emitted into the air). Additionally, MDEQ ensures that reductions were not used in previously issued permits.

Interpollutant trading is not allowed for NSR offsets. MDEQ allows credits used for netting to be used as nonattainment NSR offsets, if it can be demonstrated there is a reduction in actual emissions, and there will be a net air quality benefit. MDEQ requires offset ratios of 1:1 or greater for nonattainment NSR which are as stringent as the offsets required by the CAA. MDEQ requires applicants proposing to use NSR offsets to include a "net air quality benefit" modeling analysis as part of their permit application. A positive net air quality benefit analysis is required; however, the specific information required to be submitted is not identified in the rules.

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MDEQ does not require permit applicants to use a top-down approach to determine the most stringent control option available for LAER. The top down approach is not required by the rules; however, this approach would be highly recommended by MDEQ to determine LAER. MDEQ requires a permit applicant to identify all available control options. The applicant must also identify control options as being: (a) achieved in practice, (b) contained within the SIP of any other state or local reviewing authority {as described in the LAER definition contained at ARM 17.8.901(10)}, and (c) technologically feasible. Cost effectiveness is not considered because it is not a component of the LAER analysis. MDEQ uses other information sources in addition to the RACT/BACT/LAER Clearinghouse, including information from states, EPA, or FLMs to identify control options. MDEQ also uses vendor or any other available information. The usefulness of the information would depend on the specific project being discussed. If MDEQ did not agree with the content of the applicant's analysis, MDEQ may conduct its own independent LAER analysis. MDEQ submits its LAER determinations to EPA's RACT/BACT/LAER Clearinghouse. MDEQ considers technology transfer in its LAER determinations.

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Endangered Species Act (ESA)

Notification of PSD applicants of their ESA obligation is not applicable to Montana sources. The Montana Environmental Protection Act (MEPA) has obligations to consider endangered species effects before a permit is issued. However, the Montana Rules nor the EPA PSD rules require an evaluation of effects on endangered species.

Nonattainment NSR Program Benefits

During the program review the permitting agency was asked to identify the benefits of the Nonattainment NSR program. MDEQ's opinion the following are the Nonattainment NSR program benefits:

1. The nonattainment NSR program provides an incentive to reduce emissions below major source levels.

2. Nonattainment NSR permits provide the authority to implement other priorities such as toxic emission reduction and improved monitoring and reporting.

3. The case-by-case nature of a nonattainment NSR permit allows MDEQ to implement emission-reducing programs or controls more quickly than through rulemaking.

4. The nonattainment NSR program provides communities a mechanism to be involved in improving their own air quality.

5. The nonattainment NSR requirements have contributed to reducing emissions or avoiding emissions increases in nonattainment areas.

NSR Offsets

MDEQ does not have an emissions "bank" for offsets. Should there be appropriate reductions, MDEQ accounts for these in its attainment demonstration in the permitting analysis. MDEQ makes sure there is no double counting for attainment or offsets. Emission reductions

MDEQ uses the date that the 1 ug/m^3 baseline area is defined to assign baseline dates. MDEQ has maps for NO_x, SO_2, and PM_{10} identifying these minor source baseline dates for each area. MDEQ has an understanding of receptor location dependence versus source location dependence for increment tracking. At this point, the program is informal because very few, if any, new sources have moved into the areas of concern.

MDEQ maintains and updates a computerized emission source database for increment tracking that includes minor sources that affect the increment. The database includes the information needed for modeling (e.g., source locations, stack parameters, emissions). Actual emissions would be used for existing sources consuming increment while allowable would be used for those sources not yet permitted or in operation. There could be many different ways for determining the emissions for each averaging period, either emission factor-type information, actual source test data, emissions data from Continuous Emission Monitoring Systems (CEMS), etc. Area sources are included in increment tracking analyses, (e.g., growth-related and transportation-related emissions). Increment consumption is evaluated, primarily when a new application is submitted because there is very little growth in Montana. If a person from the public were reviewing the emission database and had some previous knowledge, they could clearly identify the sources included in an emission source inventory used for PSD modeling analysis (e.g., name, location, stack parameters) and the sources excluded in a modeling analysis.

MDEQ would work with other states or jurisdictions to obtain the necessary data to handle interstate increment tracking (for state reviewing authorities) or interjurisdiction tracking (for local reviewing authorities), including consistency of tracking across jurisdiction boundaries. MDEQ does not have a set procedure to plan and incorporate new modeling tools. MDEQ would review the new modeling tools to determine appropriateness and consult with other authorities, as necessary. Increment tracking training is not provided to NSR permitting staff. However, there will be a workshop regarding this issue this fall that Montana will attend.

Increment Tracking Procedures/EPA Findings

EPA has indicated in the past that the State has been administering its PSD increment program different than what is allowed by the State and Federal PSD rules and 40 CFR 81.327. Specifically, we believe that the only baseline areas in Montana are those that are codified as attainment or unclassifiable in 40 CFR 81.327. To create areas different than those identified in 40 CFR 81.327 the State would need to submit a request under section 107(d) of the Act with appropriate documentation. EPA sent several letters to MDEQ discussing this issue (Appendix C).

On June 25, 2002, the State made a request under section 107(d) to redesignate the "rest of state" area identifications for SO2, PM and Lead. The submittal requested that the 40 CFR Part 81 be amended by dividing the State into 4,000 separate baseline areas for air quality planning

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Preconstruction Monitoring

MDEQ has formal preconstruction monitoring requirements. The rules describe when preconstruction monitoring is required. MDEQ has a formal public participation process regarding requirements for preconstruction monitoring for specific proposed projects. This is part of the normal permit review process and permit issuance. The applicant is required to notice the submittal of the application in the newspaper. In addition, MDEQ completes a public notice with the draft permit or EIS. MDEQ consults with the FLM regarding preconstruction monitoring requirements for a proposed source or modification. MDEQ does not have a formal process during preconstruction monitoring for resolving conflicts between the FLM and the applicant. Any process used would be more informal. However, if a permit decision is challenged to the Board of Environmental Review (BER), the hearing process would be formal.

For NSR

MDEQ, in the last five years, has required an applicant applying for a PSD permit to conduct preconstruction ambient monitoring or meteorological monitoring. MDEQ has a formal approval/denial process at the conclusion of preconstruction monitoring. MDEQ does not routinely provide ambient monitoring data in lieu of requiring applicants to perform preconstruction monitoring. There are instances where MDEQ has used existing monitoring data and determined this data is appropriate to satisfy the preconstruction monitoring requirements. MDEQ follows EPA guidance (e.g., siting, equipment, data validation, audits) regarding collection of preconstruction monitoring data. Post construction ambient monitoring would be required as a condition of a PSD permit, when MDEQ determines it is necessary to determine the effect the source's emissions on the air quality of an area. MDEQ uses an internal guidance document (AppendixB) to help determine the appropriateness of post-construction monitoring.

Doesn't make sense.

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MDEQ and EPA disagree on when the baseline dates have been triggered and the definition of the baseline areas. MDEQ does not assume that the baseline area is the whole state and that the baseline date has been triggered for all of the pollutants statewide. Rather, MDEQ uses the date that the 1 ug/m3 baseline area is defined to assign baseline dates and only tracks increment in those areas. EPA has sent MDEQ letters in the past regarding the baseline dates and areas (Appendix C). Since there hasn't been much growth in Montana this hasn't been an issue, but it could become problem as Montana ~~continues~~ to grow.

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(a)

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The rules require MDEQ to send all application materials to the FLMs for review and comment. MDEQ's permitting procedures do not require the applicants to notify the FLM. However, during pre-application meetings, MDEQ strongly suggests the applicants involve the FLMs. Generally there is a very high level of communication, consultation, and discussion between MDEQ and FLMs, and there is a high level of communication between the applicant and FLMs. MDEQ actively seeks input from FLMs during the permitting process. The applicant is required to address potential adverse impacts on AQRVs identified by the FLM during the notification process. MDEQ does not require prior approval of Class I area impact analysis procedures that the applicant plans to use. There are no EPA requirements that MDEQ should require the applicant to submit a protocol prior to performing Class I modeling, however, using this methodology could result in additional work, should the modeling not be performed properly the first time. MDEQ highly recommends that applicants obtain prior approval, but it is not required. MDEQ requires applicants, as appropriate, to perform a visibility analysis for Class I areas. The applicant, as appropriate, is required to address potential effects on scenic vistas associated with Class I areas identified by the FLM during the notification process. MDEQ does not have a formal process for handling Class I area increment violations if predicted, but if this issue arises, Montana would address it. MDEQ has not issued PSD permits where the FLM objected. During the Roundup permitting action, MDEQ said that it did not have the authority to evaluate Air Quality Related Values (AQRV) impacts on tribal Class I areas. EPA is concerned about this issue and believes that MDEQ should have this authority. EPA will be discussing the issue further with MDEQ.

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EPA's Expectations for BACT Determinations

The following are EPA's expectations for how the state makes BACT determinations:

1. MDEQ will ensure that BACT determinations are conducted in accordance with the principles outlined in the NSR Workshop manual.

2. MDEQ will use the top down method and properly compare control alternatives. (If the permitting authority uses a method other than top down, the method is explicitly documented and appropriately considers energy, environmental and economic impacts).

3. MDEQ will clearly document references and resources used to develop the list of control options.

4. MDEQ will have complete and sufficient documentation for any control determined to be technically infeasible and that demonstrates that the technical difficulties would preclude the successful use of the control option for the pollutant-specific emission unit under review.

5. MDEQ will document the cost/economic impact analysis sufficiently to demonstrate that the analysis is accurate, reasonable and consistent with the EPA Control Cost Manual.

6. MDEQ will clearly describe the BACT decision criteria and the rationale for the BACT determination.

7. MDEQ will promptly enter all BACT determinations into EPA's RACT/BACT/LAER Clearinghouse.

Class I Area Protection For PSD Sources

MDEQ relies heavily on the FLMs to determine the maximum distance they are comfortable with, when a proposed project needs a Class I impacts analysis, including consideration of distance of the source from Class I areas (e.g., maximum distance criteria). Otherwise, every Class I area within a 200 km radius of the source is analyzed. The Class I impact analysis includes an Air Quality Related Values (AQRV) analysis (i.e. visibility and increment). MDEQ considers any source to be a significant new or modified source if it is located within 10 kilometers and has any impacts greater than 1 ug/m3. This source must submit an impact analysis for all pollutants. Applicants are required to submit a Class I increment

BACT Review/EPA Findings

The following are areas for improving the BACT analysis of the NSR permitting program:

1. MDEQ should include in all future permitting actions that the BACT analysis be reevaluated if construction has not been commenced within the 18 months of the permit issuance [40 CFR 52.21(i) and (j) and 51.166(j)]. {Permits issued since the Rocky Mountain Power --Hardin Generator permit have included this language.}

2. MDEQ needs to explain thoroughly in the Technical Support Document (TSD) the rationale used to make the BACT determination. The TSD should clearly explain in detail:

   - control technology infeasibility {A good example of a control technology rationale is found in the Graymont Western permit.},
   - cost (including incremental and total cost analysis) {A good example of a cost analysis is found the Plum Creek - Columbia Falls VOC section of the permit.},
   - consideration of BACT determinations from around the country {Permits issued since the Rocky Mountain Power – Hardin permit have included an expanded national search of BACT.},
   - emission limit(s) {A good example of an emission limit explanation is found in the Rocky Mountain Power Hardin permit.},
   - averaging time(s) (appropriate for the to protect the NAAQS and increments) {A good example of an averaging time is found in the Roundup permit.}, and
   - selection of appropriate test method(s) {A good example of a test method explanation is found in the Roundup permit.}.

3. Language in the PSD permit "equivalent technology" needs to be specified as a specific alternative or removed in order to allow the public the ability to know what is being permitted and to be able to provide comment on the permitted project. The permit needs to be clear and specific about what technologies are to be employed rather than leaving the permit with language that gives broad discretion to select an equivalent technology which has not gone through public comment or review.

See comments on page 5

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4. MDEQ will have complete and sufficient documentation for any control determined to be technically infeasible and that demonstrates that the technical difficulties would preclude the successful use of the control option for the pollutant-specific emission unit under review.
5. MDEQ will document the cost/economic impact analysis sufficiently to demonstrate that the analysis is accurate, reasonable and consistent with the EPA Control Cost Manual.
6. MDEQ will clearly describe the BACT decision criteria and the rationale for the BACT determination.
7. MDEQ will promptly enter all BACT determinations into EPA's RACT/BACT/LAER Clearinghouse.

Class I Area Protection For PSD Sources

MDEQ relies heavily on the FLMs to determine the maximum distance they are comfortable with, when a proposed project needs a Class I impacts analysis, including consideration of distance of the source from Class I areas (e.g., maximum distance criteria). Otherwise, every Class I area within a 200 km radius of the source is analyzed. The Class I impact analysis includes an Air Quality Related Values (AQRV) analysis (i.e. visibility and increment). MDEQ considers any source to be a significant new or modified source if it is located within 10 kilometers and has any impacts greater than 1 ug/m3. This source must submit an impact analysis for all pollutants. Applicants are required to submit a Class I increment

BACT Review/EPA Findings

The following are areas for improving the BACT analysis of the NSR permitting program:

1. MDEQ should include in all future permitting actions that the BACT analysis be reevaluated if construction has not been commenced within the 18 months of the permit issuance [40 CFR 52.21(i) and (j) and 51.166(j)]. {Permits issued since the Rocky Mountain Power --Hardin Generator permit have included this language.}

2. MDEQ needs to explain thoroughly in the Technical Support Document (TSD) the rationale used to make the BACT determination. The TSD should clearly explain in detail:

   - control technology infeasibility {A good example of a control technology rationale is found in the Graymont Western permit.},
   - cost (including incremental and total cost analysis) {A good example of a cost analysis is found the Plum Creek - Columbia Falls VOC section of the permit.},
   - consideration of BACT determinations from around the country {Permits issued since the Rocky Mountain Power – Hardin permit have included an expanded national search of BACT.},
   - emission limit(s) {A good example of an emission limit explanation is found in the Rocky Mountain Power Hardin permit.},
   - averaging time(s) (appropriate for the to protect the NAAQS and increments) {A good example of an averaging time is found in the Roundup permit.}, and
   - selection of appropriate test method(s) {A good example of a test method explanation is found in the Roundup permit.}.

3. Language in the PSD permit "equivalent technology" needs to be specified as a specific alternative or removed in order to allow the public the ability to know what is being permitted and to be able to provide comment on the permitted project. The permit needs to be clear and specific about what technologies are to be employed rather than leaving the permit with language that gives broad discretion to select an equivalent technology which has not gone through public comment or review.

benefit, the baseline that is used is the "actual emissions" as required by MDEQ's rules. MDEQ's guidelines or calculation methodology used to quantify fugitive emissions is varied because there are a wide variety of fugitive emission types. In general, MDEQ prefers to use EPA emission factors (i.e., AP-42) whenever appropriate. In addition, MDEQ may use other resources, such as professional judgment based on similar sources. MDEQ's permits contain conditions for specific emission limits or control methods/work practice standards for fugitive emissions consistent with requirements for BACT.

Modeling

MDEQ follows EPA's modeling guidelines in 40 CFR Part 51 Appendix W. MDEQ has a written agency-specific air quality modeling guidance for use by applicants. The air quality modeling guidance is titled "Montana Modeling Guidelines for Air Quality Permits" and is available through the Montana DEQ homepage on the web-site. EPA has performed an initial review of the modeling guide and found that it was adequate. The modeling guidance is not approved in state regulations or through the SIP. MDEQ asks the applicant to submit a modeling protocol for approval prior to submitting the modeling. Although the modeling protocol is not required, it is highly recommended. Obtaining Department approval before the modeling is submitted is beneficial to both the applicant and MDEQ. Deviations from the modeling guidelines in Appendix W are subjected to public comment to the same extent that all applications submitted to MDEQ are subject to public comment and are submitted to the regional EPA office for approval. EPA's regulations allow for deviations from Appendix W so long as EPA approves the deviations according to Appendix W, Section 3.2.2.a. If there is any deviation from standard modeling procedures, MDEQ requests protocols be submitted. The modeling protocol is provided to other interested organizations (e.g., EPA, Federal Land Manager (FLM), if it is submitted and the other interested parties are required to receive it, such as a modeling protocol for a permit action subject to NSR. In addition, all information that is submitted to MDEQ (that is not deemed confidential) is part of the public record and is open for public inspection. Such information is provided to interested parties as requested. MDEQ reviews the modeling submittals to determine if the option switches are correct.

Proposed new and modified minor permit actions are evaluated to determine if modeling for the NAAQS and PSD increments is needed (as mentioned earlier, MDEQ should provide the internal guidance document to identify when modeling is required). In the recent permit applications, modeling for NAAQS has been performed. Any minor source required to obtain a permit that locates in a "triggered (baseline date)" area would be required to demonstrate compliance with any applicable increment. The effect of downwash is modeled if stacks are less than good engineering practice (GEP). Montana will put the building dimensions into the model to consider the effect of downwash, if the stack is less than GEP. MDEQ properly accounts for GEP stack height if the stack is taller than GEP, with the exception of the Montana Sulphur and Chemical Company case where GEP was not correctly addressed. The most recent years available are typically used for off-site meteorological data. MDEQ may request readily

According to Montana's rule, visibility impacts are assessed when a major source or major modification of a major source occurs. Visibility issues in Class I areas have not been considered in the past, when reviewing synthetic minor applications. However, in the future, visibility considerations for minor sources could be factored into the permitting process (e.g. BACT analysis/determination). State BACT on minor source and visibility and other environmental impacts might be consideration to establish the BACT limit.

? as an environmental factor

Pollution Control Projects (PCP) Exclusion

MDEQ follows EPA's guidance on PCP exemptions from NSR. To the best of MDEQ's recollection, MDEQ has not granted any PCP exclusions for "feed" or "fuel" switches. The closest example identified is a change to cleaner fuels. MDEQ has generally required these type of activities to be permitted, rather than flagging the activity as a PCP. MDEQ would ask the applicant to provide a demonstration of the project's "environmental benefit" and not just "economic efficiency." MDEQ would review the demonstration and would seek concurrence from EPA Region 8. A modeling analysis or some other quantitative analysis could be used to evaluate collateral emission increases or a qualitative analysis could also be used to demonstrate insignificant impacts from emission increases. Hazardous Air Pollutant (HAP) collateral increases will be treated in the same way. Emission reduction credits from PCP are available for netting or NSR offsets. To the extent such decreases are made federally enforceable and are creditable (not relied upon for compliance with the SIP or enforcement actions), MDEQ believes actual emission decreases would be available to be used as offsets. The only PCP request in recent history was from a kraft pulp mill and involved the use of a regenerative thermal oxidizer that was part of a MACT requirement. Montana's NSR SIP does not include the PCP exclusion for electric utility steam generating units (WEPCO exclusion).

Fugitive Emissions

Are you saying this is different or problematic?

MDEQ's regulatory definition of "fugitive" emissions for major NSR applicability purposes is "those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening." MDEQ makes a distinction between "fugitive" emissions and "uncontrolled" emissions. Uncontrolled emissions are those emissions that do not pass through a control device or are not affected by a controlling agent or work practice. Uncontrolled emissions could be considered either "fugitive" or "point" sources of emissions depending on the type of source.

Fugitive emissions in major NSR applicability determinations for new or modified sources are considered only to the extent fugitive emissions are required to be considered, such as for the 28 listed source categories. For existing sources that are not one of the 28 "listed" source categories, Montana does not include fugitives in the need for permit determination section. MDEQ allows major sources to use reductions in fugitive emissions for netting purposes. ~~MDEQ must include fugitive emissions in determining the applicability.~~ If MDEQ believes there are actual emission reductions and it can be demonstrated there is a net air quality

delete

EPA-approved rules don't allow this for non-listed facilities